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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,710	03/29/2004	Martin Bleck	291958181US4	1453
50689	7590	10/19/2006		
PERKINS COIE LLP P.O. BOX 1247 PATENT-SEA SEATTLE, WA 98111-1247				
			EXAMINER LEADER, WILLIAM T	
			ART UNIT 1742	PAPER NUMBER

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/811,710	Applicant(s) BLECK ET AL.	
	Examiner William T. Leader	Art Unit 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 8-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 24, 2006 has been entered.
2. Receipt of the amendment filed on July 24, 2006, is acknowledged. Claims 8-22 are pending.
3. The amendment to the claims is deemed to have overcome the rejection of record under 35 U.S.C. 112, second paragraph.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 16-21 are rejected under 35 U.S.C. 102(b and e) as being anticipated by Thompson et al (5,222,310).

6. The Thompson et al patent is directed to apparatus for processing semiconductor wafers. The apparatus lends itself to a wide variety of semiconductor wafer processing techniques including those in which the wafer is immersed with a processing liquid. See column 7, lines 43-46. The apparatus includes a deck (element 88; column 7, lines 12 and 56); a processing vessel configured to receive at least one processing fluid (processing base 70 with an upwardly open bowl; column 6, lines 32-34); a workpiece support with a base attached to the deck (processing head 12; element 111 may be considered a base attached to the deck and above the deck) and a movable workpiece holder (rotatable wafer plate 30); a drive unit to rotate the workpiece (motor 34); and an aperture in which the processing vessel is received (receiving aperture 90). All elements recited in independent claim 16 are considered to be taught by Thompson et al.

7. With respect to claims 17 and 18, the workpiece support is configured to move the workpiece vertically between a process position and a receive wafer position by rotating about a rotation axis, the axis being through pin 102. See figures 12 and 15. With respect to claim 19, the bowl is configured to receive an electrochemical processing liquid. With respect to claim 20, the processing vessel extends below the deck (figure 1). With respect to claim 21, the workpiece may be immersed in (i.e. contact) the processing liquid (column 7, lines 36-39 and 42-46).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
10. Claims 9-15 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson et al (5,222,310) in view of Yee et al (5,135,636) and Cancelleri et al (4,192,729)
11. Independent claim 8 is similar to independent claim 16 but recites that the workpiece support includes at least one electrode and at least one sheath position to seal against the surface of the workpiece. As noted above, the apparatus of Thompson et al is suitable for performing a wide variety of semiconductor wafer processing techniques in which the wafer is contacted with a process liquid (column 7, lines 42-46). One such semiconductor processing technique that includes contact of a semiconductor wafer with a process liquid is electroplating as shown by Yee et al. Yee et al disclose a process in which a semiconductor wafer is supported on plate 12 by cam fingers 28 which serve as cathode electrodes and provide both the mechanical force that holds a wafer and the electrical connection that passes electric current required for electroplating

(column 4, lines 13-16). It is noted that in the apparatus of Thompson et al the semiconductor wafer is supported by fingers 40.

12. The Cancelleri et al patent is directed to apparatus for performing electrochemical processing on a wafer. The apparatus includes an anode electrode contact finger 36 which is surrounded by sleeve 27 which seals against the surface of the workpiece to protect it from the electrolyte (column 4, lines 3-23).

13. The prior art of record is indicative of the level of skill of one of ordinary skill in the art. It would have been obvious at the time the invention was made to have configured the apparatus of Thompson to provide electric current through the fingers because electrochemical semiconductor processing such as electroplating would have been performed as shown by Yee et al, and to have provided a sheath which seals against the workpiece as shown by Cancelleri et al because the electrode finger would have been protected from the electrolyte. Dependent claims 9-13 are similar to dependent claims 17-21 discussed above. Claims 14 and 22 recite that the workpiece support includes at least one contact assembly having at least one electrical contact positioned to make contact with the workpiece. As previously described, Yee includes elements 28 on the workpiece support. As shown by Yee, These elements are positioned to make electrical contact with the workpiece.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William T. Leader whose telephone number is 571-272-1245. The examiner can normally be reached on Mondays-Thursdays and alternate Fridays, 7:30-4:00.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



William Leader  
October 12, 2006



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